

09/707427

CHEM 202 (993724)

RECOVERY OF LITHIUM COMPOUNDS FROM BRINES

Background and Summary of the Invention

The present invention relates to an integral process that uses a minimum number of process steps for producing chemical and high purity grades of lithium carbonate and lithium chloride directly from the same natural brine source.

It is desirable, from a commercial standpoint, to provide a source of lithium low in sodium content because sodium becomes reactive and potentially explosive in certain chemical processes, particularly those in production of lithium metal from lithium salts. A substantial portion of presently available lithium is recovered from brines, which also contain high levels of sodium, making the production of low sodium lithium salts difficult and expensive. At the present time, there does not exist a viable low cost integral processes for producing low sodium lithium carbonate and chemical and high purity grades of lithium chloride directly from natural brines containing lithium.

Natural brines that contain lithium also contain many constituents as illustrated in the following Table:

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